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09/668,438	09/22/2000	Motoki Kato	SONY- U0150	2142

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER

TRAN, THAI Q

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/668,438

Applicant(s)

KATO ET AL.

Examiner

Thai Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6, 10-20, 24-28, 43, 44 and 46-73 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-20, 24-28, 43, 44 and 46-73 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 70-73 are rejected under 35 U.S.C. 101 because claims 70-73 are directed to nonfunctional descriptive material stored in a recording medium. Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are neither physical "things" nor statutory processes. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory) and merely claiming nonfunctional descriptive material stored in a computer-readable medium does not make it statutory. See MPEP 2106.IV.B.1.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-2, 6, 15-16, 20, 43-44, 46-54, and 70 are rejected under 35

U.S.C. 102(e) as being anticipated by Nagata et al (US 2004/0047612).

Regarding claim 1, Nagata et al discloses a transport stream recording apparatus (Fig. 10) for recording transport stream on a recording medium, comprising:

a detector (a STC counter 32 of Fig. 10, page 7, paragraph #0114 and page 4, paragraph #0080) configured to detect, from a transport packet constituting said transport stream, a system time clock (STC) discontinuity point in said transport stream;

a generator (the STC counter 32 of Fig. 10, page 7, paragraph #0114 and page 4, paragraph #0080) configured to generate STC sequence information indicative of the sequence of transport packets that includes no STC discontinuity in accordance with said STC discontinuity point; and

a recording unit (the recording/reproduction control section 29 of Fig. 10, page 7, paragraph #0115 and paragraph #0121) configured to record said transport packet onto said recording medium along with said STC sequence information.

regarding claim 2, Nagata et al discloses the claimed wherein said detector comprises:

a first extracting block (PCR disclosed in page 7, paragraph #0114) configured to extract reference time information located in said transport stream;

a time information generator (the STC counter 32 of Fig. 10, page 7, paragraph #0114 and page 4, paragraph #0080) configured to generate system time information on the basis of said reference time information; and

a time discontinuity detector (the STC counter 32 of Fig. 10, page 7, paragraph #0114 and page 4, paragraph #0080) configured to detect occurrence of discontinuity in said reference time information.

regarding claim 6, Nagata et al discloses the claimed wherein said reference time information is a program clock reference and said system time information is a system time clock (PCR and STC disclosed in page 7, paragraph #0114).

Method claims 15-16 and 20 are rejected for the same reasons as discussed in corresponding apparatus claims 1-2 and 6 above.

Regarding claim 43, Nagata et al discloses a transport stream reproducing apparatus (Fig. 10) for reproducing a transport stream recorded on a recording medium, comprising:

a reproducing unit (the recording/reproduction control section 29 of Fig. 10, pages 7-8, paragraphs #0131 and #0132) configured to reproduce said transport stream and system time clock (STC) sequence information from said recording medium, said transport stream including a sequence of transport packets, and said STC sequence information indicating the sequence of transport packets that includes no STC discontinuity; and

a controller (the recording/reproduction control section 29 of Fig. 10, pages 7-8, paragraphs #0131 and #0132) configured to control reproduction position on the basis of the STC sequence information and desired access point.

Method claim 44 is rejected for the same reasons as discussed in corresponding apparatus claim 43 above.

Regarding claim 46, Nagata et al discloses a transport stream recording apparatus (Fig. 10) comprising:

an input unit (transport stream 1 of Fig. 10) in which a transport stream is inputted;

a generator (page 8, paragraph #0148) for generating reproduction management information in a unit of an interval in which a program clock reference packet identifier (PCR\_PID) value in said transport stream does not change; and

a recording unit (page 7, paragraph #0120 and page 8, paragraph #0149) for recording said reproduction management information along with said transport stream.

Regarding claim 47, Nagata et al discloses the claimed wherein said generator comprises:

an analyzer (page 8, paragraph #0148) operative to extract information identifying PCR\_PID.

Regarding claim 48, Nagata et al discloses the claimed wherein said generator comprises:

an analyzer (page 8, paragraph #0149) operative to extract the number of video elementary stream included in said unit interval.

Regarding claim 49, Nagata et al discloses the claimed wherein said generator comprises:

an analyzer (page 8, paragraph #0149) operative to extract the number of audio elementary streams included in said unit interval.

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Regarding claim 50, Nagata et al discloses the claimed wherein said generator comprises:

an analyzer (page 8, paragraphs #0148 and #0149) operative to extract a packet identifier of each video stream included in said unit interval.

Regarding claim 51, Nagata et al discloses the claimed wherein said generator comprises:

an analyzer (page 8, paragraphs #0148 and #0149) operative to extract information for identifying a packet identifier of each audio stream included in said unit interval.

Regarding claim 52, Nagata et al discloses the claimed wherein said generator comprises:

an analyzer (page 8, paragraphs #0148 and #0149) operative to extract coding attribute information of each video stream included in said unit interval.

Regarding claim 53, Nagata et al discloses the claimed wherein said generator comprises:

an analyzer (page 8, paragraphs #0148 and #0149) operative to extract coding attribute information of each audio stream included in said unit interval.

Method claim 54 is rejected for the same reasons as discussed in corresponding apparatus claim 36.

Regarding claim 70, the claimed a computer readable recording medium is met by the recording device 26 of Fig. 10 as discussed in claim 1 above.

***Claim Rejections - 35 USC § 103***

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6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 55-58, 62 and 68-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagata et al (US 2004/0047612 A1).

Regarding claim 55, Nagata et al discloses all the claimed limitations as discussed in claim 46 above except for providing a computer readable carrier including computer program instruction that cause a computer to implement a method.

It is noted that using microprocessor associated with ROM to control video recorder/reproducer is old and well known in the art and; therefore, Official Notice is taken.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the well known microprocessor associated with ROM to control



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the system of Nagata et al in order to simplify the process of controlling the system of Nagata et al.

Regarding claim 56, Nagata et al also discloses the claimed wherein reproduction management information is recorded in each unit of an interval in which a PCR\_PID value in said transport stream does not change (page 8, paragraphs #0148 and #0149).

Regarding claim 57, Nagata et al discloses all the claimed limitations as discussed in claim 1 above except for providing a computer readable medium having stored thereon computer executable instruction for recording a transport stream.

It is noted that using microprocessor associated with ROM to control video recorder/reproducer is old and well known in the art and; therefore, Official Notice is taken.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the well known microprocessor associated with ROM to control the system of Nagata et al in order to simplify the process of controlling the system of Nagata et al.

Claim 58 is rejected for the same reasons as discussed in claim 2 above.

Claim 62 is rejected for the same reasons as discussed in claim 6 above.

Regarding claim 68, Nagata et al discloses all the claimed limitations as discussed in claim 43 above except for providing a computer readable medium having stored thereon computer executable instruction for reproducing a transport stream.

It is noted that using microprocessor associated with ROM to control video recorder/reproducer is old and well known in the art and; therefore, Official Notice is taken.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the well known microprocessor associated with ROM to control the system of Nagata et al in order to simplify the process of controlling the system of Nagata et al.

Regarding claim 69, Nagata et al also discloses the claimed generating reproduction management information in a unit of an interval in which a program clock reference packet identifier (PCR\_PID) value in said transport stream does not change (page 8, paragraphs #0148 and #0149); and a recording unit for recording said reproduction management information along with said transport stream (page 8, paragraphs #0148 and #0149).

8. Claims 3-5, 10-14, 17-19, 24-28, 59-61, 63-67, and 71-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagata et al (US 2004/0047612 A1) in view of Fujinami et al (US 6,363,212 B1).

Regarding claim 3, Nagata et al discloses all the claimed limitations as discussed in claim 2 above except for providing wherein generator generates, as said STC sequence information, time axis identification information for identifying a time axis and position information corresponding to a start time of said time axis.

Fujinami et al teaches an apparatus for encoding and decoding digital video data having entry packet including time axis identification information for identifying a time

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axis and position information corresponding to a start time of said time axis (col. 5, line 47 to col. 6, line 22) in order to successively reproduce I-frames occurring at relatively high intervals of time, for example, every 1, 2, 4, etc. seconds, in the bit stream (col. 1, lines 47-59).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the entry packet as taught by Fujinami et al into Nagata et al in order to successively reproduce I-frames occurring at relatively high intervals of time.

Regarding claim 4, Fujinami et al also discloses the claimed wherein said generator generates, as said time axis identification information, said system time information corresponding to a start time of said time axis and said system time information corresponding to an end time of said time axis (entry packet disclosed in col. 5, line 47 to col. 6, line 22).

Regarding claim 5, Fujinami et al discloses the claimed wherein said generator generates, as said time axis identification information, said system time information corresponding to a display start time on said time axis and said system time information corresponding to a display end time on said time axis (entry packet disclosed in col. 5, line 47 to col. 6, line 22).

Regarding claim 10, Fujinami et al discloses also discloses the claimed a first analyzer (entry point detector 31 of Fig. 1, col. 4, lines 36-53) configured to extract, from said transport packs, a transport packet including data that may provide a reproduction start position; and an entry point map generator (entry sector generation 32 of Fig. 1, col. 6, lines 41-55) configured to generate an entry point map for identifying said

transport packet including said data; wherein said recording unit records said entry point map on said recording medium as said database corresponding to said transport stream (col. 6, line 41 to col. 7, line 3).

Regarding claim 11, Fujinami et al discloses the claimed wherein said first analyzer extracts a transport packet including I picture data as said transport packet including said data that may provide said reproduction start position (col. 4, line s36-53); and said entry point map generator generates said entry point map by use of positional information of said transport packet including said I picture data and time information of said I picture (col. 6, line 41 to col. 7, line 3).

Regarding claim 12, Fujinami et al discloses a second analyzer (entry point detector 31 of Fig. 1, col. 4, lines 36-53) configured to extract transport packet including data that provide a mark point from said transport packets; and a mark point information generator (entry sector generation 32 of Fig. 1, col. 6, lines 41-55) configured to generate mark point information for identifying said transport packet including said data that provide said mark point; wherein said recording unit records said mark point information on said recording medium as said database corresponding to said transport stream (col. 6, line 41 to col. 7, line 3).

Regarding claim 13, Fujinami et al further discloses the claimed wherein said mark point information generator generates said mark point information by use of time information of said mark point and time axis identification information for identifying a time axis to which said time information belongs (entry packet disclosed in col. 5, line 47 to col. 6, line 22).

Regarding claim 14, Nagata et al also discloses the claimed wherein said time information is a presentation time stamp (page 3, paragraph #0065).

Method claims 17-19 and 24-28 are rejected for the same reasons as discussed in corresponding apparatus claims 3-5 and 10-14 above.

Claims 59-61 and 63-67 are rejected for the same reasons as discussed in claims 3-5 and 10-14 above.

Claims 71-73 are rejected for the same reasons as discussed in claims 3-5 above.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The cited references relate to an apparatus for recording video signal.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai Tran whose telephone number is (703) 305-4725.

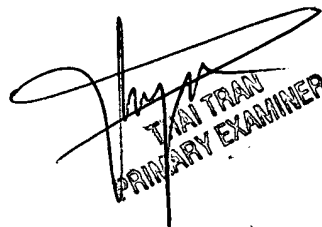
The examiner can normally be reached on Mon. to Friday, 8:00 AM to 5:30 PM.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTQ



THAI TRAN  
PRIMARY EXAMINER